

October 2016

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Carbon dioxide levels race past troubling milestone

Carbon dioxide levels in Earth's atmosphere passed a troubling milestone for good this summer and locked in levels of the heat-trapping gas not seen for millions of years. "It's unlikely we'll ever see CO₂ below 400 ppm during our lifetime and probably much longer," says Pieter Tans, lead scientist of NOAA's Global Greenhouse Gas Reference Network.

NEWS YOU CAN USE

- This month, SWPC operations began testing, for forecasters and the public, a new geospace model that can give regional magnetic disturbances over the entire globe about 15 to 45 minutes before a solar storm hits Earth.
- Colorado Winter Weather Preparedness Week is October 16th to 22nd. Check out these tips from the NWS.
- NIDIS sponsors a Drought and Climate Outlook Forum for the Northeast in Boston on October 11.

IN OUR COMMUNITY

- GMD's Brad Hall won 2016 Governor's Award for High Impact Research.
- Faculty and students from Howard University visited Boulder to build foundational relationships with ESRL scientists and programs.
- For National Historic Hispanic Month, Sylvia Rodriguez presented "Acequias, Sustainability, and the Moral Economy of Water."
- GSD supports hurricane forecasts with data visualization.

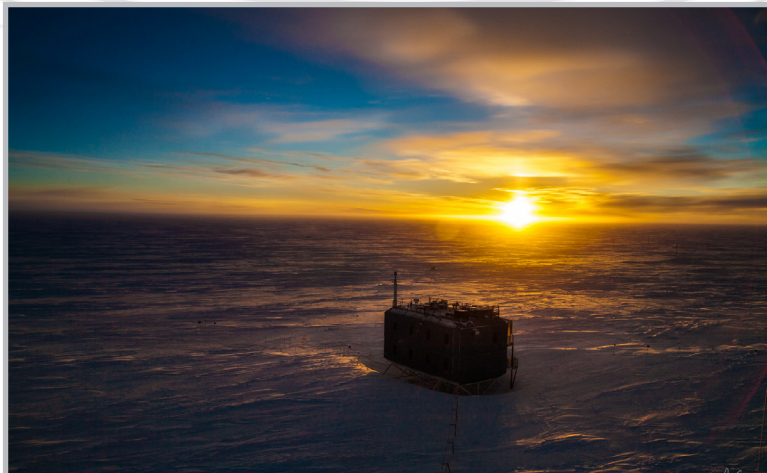
TRENDING

ESRL's top Tweet in September earned 1,977 impressions.



*The Cooperative Institute for Research in Environmental Sciences (CIRES) at the University of Colorado Boulder and the Cooperative Institute for Research in the Atmosphere (CIIRA) at Colorado State University are part of NOAA's research community.

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Measurements taken at GMD observatories on Mauna Loa and at the South Pole (pictured) indicate that CO₂ may have passed 400 ppm for good.

SPOTLIGHT

No Evidence for Unknown Source of Ozone Precursor

A study led by CIRES/CSD's Andy Neuman found that known sources of nitrous acid are enough to explain levels seen in the atmosphere. His work was featured in an EOS Research Spotlight.

Building an Accessible Archive for Water Column Sonar Data

In a recent EOS article, CIRES/NCEI's Carrie Wall wrote about the Water Column Sonar Data Archive that aggregates and curates sonar data sets from many sources. This gives researchers access to much more information than they could collect on their own.

NOAA "Reels in" Data on Utah's Winter Ozone Problem

A deep sea fishing rod is at the heart of a new GMD system that gives scientists a minute-by-minute look at how quickly the sun, snow, and chemical vapors emitted by oil and gas facilities produce harmful ground-level ozone.



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NOAA Boulder



National Weather Service
(NWS)

National Environmental
Satellite, Data, and
Information Service (NESDIS)

Office of Oceanic and
Atmospheric Research (OAR)

National Ocean Service (NOS)

Space Weather Prediction Center (SWPC)

Weather Forecast Office (WFO)
Boulder/Denver

National Centers for Environmental
Information (NCEI)

Center for Coasts,
Oceans, and
Geophysics (CCOG)

Center for Weather
and Climate (CWC)

Earth System Research
Laboratory (ESRL)

Chemical Sciences
Division (CSD)

Global Systems
Division (GSD)

Global Monitoring
Division (GMD)

Physical Sciences
Division (PSD)

BLDC: Boulder Labs Diversity Council

BOCC: Boulder Outreach and Coordinating Council

CCOG: Center for Coasts, Oceans, and Geophysics

CSD: Chemical Sciences Division

CWC: Center for Weather and Climate

EEO: Equal Employment Opportunity

ESRL: Earth System Research Laboratory

GMD: Global Monitoring Division

GSD: Global Systems Division

NCEI: National Centers for Environmental Information (formerly NGDC)

NESDIS: National Environmental Satellite, Data, and Information Service

NIDIS: National Integrated Drought Information System

NOAA: National Oceanic and Atmospheric Administration

NOS: National Ocean Service

NWS: National Weather Service

OAR: Office of Oceanic and Atmospheric Research or NOAA Research

PSD: Physical Sciences Division

SWPC: Space Weather Prediction Center

WFO: Weather Forecast Office